Cryogenics

- Cryogenic Scope Definition
- Resource Allocation
- Current Status
- Budget
- Plans and issues

Cryogenic Scope Definition

- We are progressing based on our understanding of the scope and that it may not correspond to the scope that the upper level management is able to implement given resources available

- Our understanding is:
  - CryoCap 2 operation at 4.5K in PD test area
  - SMTA operational with CHECHIA in May 06 at 2K
  - PD test cryostat operational in July 06 at 4.5K or 2K
  - PD SC solenoids installation in October 06
  - NML temporary cryogenic system commissioning in FY 07
  - NML new cryogenic system study to be finished in FY 06
  - Contribute to PD CD1 by May 06
  - Contribute to ILC CDR

- Scope has to be based on realistic resource availability

Resource Allocation

- FY 05 resources utilized by AD Cryo:
  - AD Cryogenic Department
  - PPD Process Engineering and Mechanical Support
  - SLAC Engineer and Designer
  - TD Designers
- FY 06 scope should also be determined by resource availability

Current Status

PDTA at MDB

- MDB cryogenic system is operational at 4.5K
- CryoCap 2 installation and safety review are in progress
- Vacuum pump for 2K helium operation is being modified at PAB
- CTF purifier compressor installation is in progress
- Proceeding with vacuum pump header installation
- Proceeding with controls design and construction for SMTA, PD test cryostat and Vacuum pump
- SMTA cryogenic transfer line is in construction
- PD test cryostat distribution system is under design
- Started conceptual design for PD front end cryogenic distribution system

Current Status (cont'd)

ILCTA at NML

- Civil design for He gas storage tanks has started
- Specification for a new 30,000 gal He storage tank is being prepared
- LN2 storage tank is being refurbished
- Mycom compressor is scheduled to be installed at Lab B in November
- Drawings and specification for Mycom piping contract are being completed
- Civil work on Mycom cooling water is in progress
- Plans are being worked on to remove and refurbish PS-1 heat exchanger
- Package of drawings and specification is being assembled for He purifiers
- 3-D model of NML refrigerator room layout for two Tevatron heat exchangers is finished
- Work on piping of the NML is in progress
- 3-D modeling of the supply end of Test cave distribution system is being worked on

Budget

ID	Task Name	FY 06 Budget Request	Actual Cost	Balance
1	**SMTF FY 06 Cryogenics**	**$1,331,000**	**($33,046)**	**$1,297,954**
2	SMTF FY 06 Cryogenics Start	$0	$0	$0
3	**PDTA**	**$245,000**	**($24,720)**	**$220,280**
48	**ILCTA**	**$1,086,000**	**($8,326)**	**$1,077,674**
125	**Proto Driver**	**$0**	**$0**	**$0**
127	**ILC**	**$0**	**$0**	**$0**
129	SMTF FY 06 Cryogenics Finish	$0	$0	$0

Plans and issues

Plans

- Request to finalize ILCTA and PDTA scope ASAP
- Proceed with current tasks as stated
- Develop project schedule based on the final scope and realistic resources available

Issues

- Resource availability
- Final scope should include program plans and milestones
- Organizational structure (meetings, sponsors, etc.)

NML Refrigerator Room